Approved For Release 2001/04/23 : CIA-RDP78-02820A000800050052-1

SECRET
(When Filled In)

MONTHLY PROJECT REPORT

ORIGINATING | BUDGET LIN | REPORTING PERIOD
FY | AMOUNT | 1-31 August 1962

ACTION

FUTURE | X ACTIVE | COMPLETED | CANCELLED | SUSPENDED

PROJECT NUMBER | PRIORITY CLASS | PRIMARY RESPONSIBILITY

E-5216 | | EES [redacted]

25X1A9a

PROJECT TITLE

Antennas and Associated Equipment

PROJECT REQUIREMENT

For a better coordinated technical approach to the fulfillment of antennas and related equipment requirements, all previous and future antenna planning will be assigned this project number.

PROJECT DESCRIPTION

To assist the base and field stations in the design of new and renovation of present antenna systems.

To advise the base and field station on the latest developments in antennas, and transmitter to antenna matching devices.

To establish the antennas, associated equipment and related hardware that will be standard stock items.

ORIGINAL DATE | APPROVED BY | STARTING DATE | COMPLETION DATE

/FGI/ [signature]
/HWK/ [signature] | March 1962

REMARKS

1. After a complete analysis of the [redacted] antenna requirements, it was determined that the present rhombic system supplemented with vertical dipole LP antennas will fulfill both the present and future major antenna requirements. The complete study of the circuit analysis is near completion and will be forwarded to [redacted] for coordination. 25X1A6b 25X1A

2. A list of LP and conical monopole antennas to fulfill area requirements for FY-63 is being prepared. Procurement action to include associated equipment such as baluns, matching devices, transmission lines, etc., will be undertaken in the near future.

3. The progress status of the [redacted] antenna renovation program was discussed with the Station Engineer who was here on TDY. The receiver site installation is nearing completion. We will now concentrate on the antenna requirements for the transmitter site. 25X1A6b

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4. The Chief of Station and Station Engineer [redacted] and the [redacted] Area Engineer were consulted concerning the best method to implement the [redacted] antenna renovation program. 25X1A6a 25X1A6b 25X1A6b

5. Evaluation of the [redacted] dipole antenna tuning system under Contract 686, Task 2 continues. 25X1A

6. Smith charts were drawn to verify the design parameters of the coupler. After many calculations we may conclude that the coupler is every bit as good as the designers claim it to be. Impedances creating as great as 100 to 1 SWR normalized to 200 ohms are easily matched by the coupler. The coupler is designed to withstand exceptionally high currents and voltages encountered at the low frequencies (3 to 4.0 MC) and could be rated at 10 KW input at about 10 MC with certain changes in coaxial cable and fittings.

7. Charts were drawn to show the relationship between remote dial readings with inductance values and input-output capacitance. This was done in order to properly evaluate future tests on various antenna lengths.

8. An evaluation between the tuned center fed dipole vs. the 35 ft. whip for both long and short haul circuits is being prepared to show the advantages and disadvantages of each over the 3 to 30 MC range.

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